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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/588,248

04/30/2007

Jae-Sun Cha

1403-20 PCT US

6449

66547 7590 09/13/2011
THE FARRELL LAW FIRM, P.C.
290 Broadhollow Road
Suite 210E
Melville, NY 11747

EXAMINER

DESIR, PIERRE LOUIS

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

09/13/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/588,248
Filing Date: April 30, 2007
Appellant(s): CHA ET AL.

Paul J Farrell
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 07/20/2011 appealing from the Office action mailed 02/16/2011.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 20-35 are rejected and pending in the application.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN

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REJECTIONS.” New grounds of rejection (if any) are provided under the subheading “NEW GROUNDS OF REJECTION.”

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant’s brief.

(8) Evidence Relied Upon

Koo et al., "Inter-BS communication for IEEE 802.16e Handoff," 2003-05-14

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

The following is a repetition of the rejection found in Office Action mailed on 02/16/2011.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 20-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koo (previously disclosed and cited by examiner).

Regarding claims 20 and 30, Koo discloses a method of performing a handover on a subscriber station in a target base station (see pages 9-10), the method comprising: receiving a ranging request from the subscriber station (i.e., RNG-REQ from MSS to target BS) (see pages 9-10, fig. XXX) when a drop is detected by the subscriber station (i.e., measurement

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of S/R) (see pages 9-10, fig. XXX); transmitting a response message on the ranging request message to the subscriber station (i.e., RNG-RSP) (see pages 9-10, fig. XXX); and performing network re-entry on the subscriber station (section 6.2.2 describes a MSS that is trying to re-enter the network after a HO, and as result, a MSS-info message is sent from one BSS to another to request information about a MSS) (see page 4).

Koo, however, does not specifically disclose a method comprising including a base station identifier of a previous serving base station in the request, and comprising acquiring information of the subscriber station through the base station identifier.

However, Koo discloses that I-am-host-of message is sent by a BS to notify other base station that a certain MSS is registered with it. The message shall be sent upon MSS registration, and periodically. The message contains sender BS-ID, Target BS-ID and MSS unique identifier (see section 6.2.1 and page 4). And in section 6.2.6, it is described and illustrated that a serving BS communicates with a target base station informing it of handover intention of the MSS. As a result the serving BS communicate a HO-IND message to the MSS. The target BS transmits both a DL-MAP and UL-MAP to the MSS, as a result, the MSS transmit a RNG-REQ to the target base station, And receives from the target BS a RNG-RSP.

Now, one skilled in the art would find it to be obvious that the MSS has to include the identification of the previous serving base station to permit the target BS to properly acquire information that it has already received during the HO-notification message (section 6.2.4, page 5), message that includes the MSS unique identifier and sender BS-ID and required bandwidth and required QoS.

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Regarding claim 21, Kitroser discloses a method (see claim 20 rejection), wherein the acquiring comprises: requesting the information of the subscriber station to the previous serving base station based on the base station identifier of the previous serving base (i.e., MSS-info-request message) (see page 4, section 6.2.2); and receiving the information of the subscriber station from the previous serving base station (i.e., MSS-info-response message) (see pages 4-5, section 6.2.3).

Regarding claims 22, 25, 28, 31, and 34, Koo discloses a method (as described above) wherein the ranging request message further includes a media access control (MAC) address of the subscriber station (i.e., the RNG-REQ provided to the target BS includes 48-bit universal MAC address) (see page 7, section 6.2.6).

Regarding claims 23, 26, 29, 32, and 35, Koo discloses a method (see claims 20, 24, 27, 30, 35 rejections) wherein a length of the base station identifier of the previous serving base station length is 48 bits (see section 6.2.1, table 2).

Regarding claims 24, 27, and 33, Koo discloses a method of performing a handover in a subscriber station of a communication system, the method comprising: transmitting a ranging request message to a target base station (i.e., RNG-REQ from MSS to target BS) (see pages 9-10, fig. XXX) when a drop is detected by the subscriber station (i.e., measurement of S/R) (see pages 9-10, fig. XXX); receiving a ranging response message from the target base (i.e., RNG-RSP) (see pages 9-10, fig. XXX) and performing network re-entry through the target base station (section 6.2.2 describes a MSS that is trying to re-enter the network after a HO, and as result, a MSS-info message is sent from one BSS to another to request information about a MSS) (see page 4).

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Koo, however, does not specifically disclose a method comprising including a base station identifier of a previous serving base station in the request, and comprising acquiring information of the subscriber station through the base station identifier.

However, Koo discloses that I-am-host-of message is sent by a BS to notify other base station that a certain MSS is registered with it. The message shall be sent upon MSS registration, and periodically. The message contains sender BS-ID, Target BS-ID and MSS unique identifier (see section 6.2.1 and page 4). And in section 6.2.6, it is described and illustrated that a serving BS communicates with a target base station informing it of handover intention of the MSS. As a result the serving BS communicates a HO-IND message to the MSS. The target BS transmits both a DL-MAP and UL-MAP to the MSS, as a result, the MSS transmits a RNG-REQ to the target base station, and receives from the target BS a RNG-RSP.

Now, one skilled in the art would find it to be obvious that the MSS has to include the identification of the previous serving base station to permit the target BS to properly acquire information that it has already received during the HO-notification message (section 6.2.4, page 5), message that includes the MSS unique identifier and sender BS-ID and required bandwidth and required QoS.

(10) Response to Argument

Appellants argue that Koo fails to disclose the detection of a drop situation by the subscriber station as recited in claim 20.

To support the above argument, appellant states that the examiner relates the measurement of S/R at the MSS in Koo to the detection of a drop situation at the subscriber station. Appellants continue by stating that S/R is undefined in Koo, but is assumed by

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Appellants to represent a signal to noise ratio in a communication system. The detection of a signal to noise ratio relates to currently established communication sessions. Accordingly, conclude appellants, the measurement of an S/R of a current connection **differs from detection of a drop situation in which there is no current connection**.

Examiner respectfully disagrees.

First examiner want to state that Appellants assumed correctly what S/R stands as it is well known in the art and can be appreciated from the context within which Koo is addressing the S/R.

Further, the independent claims do not provide any language to support the above statement, “**detection of a drop situation in which there is no current connection**.”

In the case appellants are attempting to make such argument, first it appellants should be reminded that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

"Drop situation" may be interpreted not only as "no connection" but also as a "decrease on connection."

Koo discloses that a mobile station measures S/R as applied to the serving base station. Based on the measurements, the mobile station sends HO-Req with possible target to the serving base station. It is clear, as would be perceived obvious by one of ordinary skill in the art that one of the reasons why the mobile station would send the HO-Req after the measurements is because of a drop in signal quality in the serving base station.

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To further elaborate, on page 9 of the reference, it is illustrated that the MSS measures the S/R as applied to the serving base station. Based on the measurement, the MSS sends MSSHO-REQ with possible target to the serving base station. Therefore, it is clear, from the S/R measurement, the mobile station detects a change in signal quality. The result of the measurements is the sole reason why the MSS sends the MSSHO-REQ to the serving base station.

Appellants also argue that Koo fails to provide any disclosure indicating that the ranging request message from the subscriber station includes a base station identifier of a previous serving base station. And that Koo actually teaches away from the inclusion of the BS-ID in the ranging request.

To support the above, appellants disclose that it would be redundant to include the serving BS-ID in the RNG-Req because the target base station would already receive that information directly from the serving base station.

Examiner respectfully disagrees.

It is well known in the art to have base stations communicating with a plurality of mobile stations. More than one mobile stations at a time may send ranging request to a target base station. The target BS, because of the HO-notification message, acquired MSS unique identifier and the serving BS-ID and required bandwidth and QoS.

Also, as known in the art, the target base station ID and the MS-ID are included in the ranging request message. One skilled in the art would find obvious that there would be some expectation to also include the serving BS-ID since the target base station would need to map the MS-ID with the serving BS-ID to acquire information related to the mobile station so that

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appropriate services may be rendered to the Mobile station. As such, the serving base station would need to be included in the RNG-request

The above response also applied to Independents claims 24, 27, 30, and 33 since applicants state that they are patentable for the same reason presented in claim 20.

Regarding the dependent claims, no substantive arguments were presented.

Accordingly, the Honorable Board is respectfully requested to maintain the rejections, as applied by Examiner.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/PIERRE-LOUIS DESIR/
Primary Examiner, Art Unit 2617

Conferees:

/Dwayne Bost/
Supervisory Patent Examiner,
Art Unit 2617

/George Eng/
Supervisory Patent Examiner, Art Unit 2617